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## FROM BMJ JOURNALS .....

### Use of nicotine replacement therapy and the risk of acute myocardial infarction, stroke, and death

R Hubbard, S Lewis, C Smith, C Godfrey, L Smeeth, P Farrington, J Britton

Please visit the Heart website [www.heartjnl.com] for a link to the full text of this article.

**Objective:** To determine whether nicotine replacement therapy (NRT) is associated with an increased risk of acute myocardial infarction, acute stroke, or death.

**Design:** Self control case series analysis of data from The Health Improvement Network (THIN) to estimate the relative incidence of myocardial infarction and stroke in four 14 day periods before and after the first prescription for NRT.

**Setting:** THIN is a computerised general practice database.

**Subjects:** Patients contributing data to THIN.

**Interventions:** Observational study of NRT.

**Main outcomes:** Acute myocardial infarction, acute stroke, and death.

**Results:** 33 247 individuals had been prescribed NRT, of whom 861 had had a myocardial infarction and 506 a stroke. There was a progressive increase in the incidence of first myocardial infarction in the 56 days leading up to the first NRT prescription (overall incidence ratio 5.55, 95% confidence interval (CI) 4.42 to 6.98), but the incidence fell after this time and was not increased in the 56 days after starting NRT (incidence ratio 1.27, 95% CI 0.82 to 1.97). The results were similar for second myocardial infarction and stroke, and for subgroups of people with pre-existing angina and hypertension. There were 960 deaths in our cohort during a mean follow up period of 2.6 years after starting NRT, with no evidence of an increased mortality in the 56 days after the NRT prescription (incidence ratio 0.86, 95% CI 0.60 to 1.23).

**Conclusions:** The use of NRT is not associated with any increase in the risk of myocardial infarction, stroke, or death.

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